

## WHAT IS CLAIMED::

1. A safety switch for preventing unintentional discharge of a vehicle battery, said safety switch comprising a semiconductor switch.
2. The safety switch according to Claim 1, wherein the semiconductor switch disconnects a vehicle consuming device from the vehicle battery after expiration of a defined time interval.
3. The safety switch according to Claim 1, wherein the semiconductor switch disconnects a vehicle consuming device from the vehicle battery as a function of a charge condition of the battery.
4. The safety switch according to Claim 1, wherein the semiconductor switch is a SenseFET.
5. A method for monitoring defects for the detection of excessive current consumption in a vehicle electric system said method comprising using a semiconductor safety switch to monitor current consumption through a vehicle socket.
6. The method according to Claim 5, wherein said semiconductor safety switch comprises a SenseFET.

7. A method for monitoring quiescent current flowing in a motor vehicle, said method comprising using a semiconductor safety switch to monitor said current.

8. The method according to Claim 7, wherein said semiconductor safety switch comprises a SenseFET.

9. A method for controlling the charge of a vehicle battery, said method comprising using a semiconductor safety switch to connect and disconnect said battery to and from electric consuming devices on said vehicle.

10. Apparatus for preventing unintentional discharge of a vehicle battery, said apparatus comprising:

a semiconductor safety switch interruptibly coupling said battery to electric consuming devices on said vehicle; and

a programmable control unit for opening and closing said semiconductor safety switch as a function of a monitored parameter.

11. The apparatus according to Claim 10, wherein said semiconductor safety switch is connected to selectively supply or interrupt electric power from

said battery to an electric socket of said vehicle, for coupling said electric power to said consuming devices.

12. The apparatus according to Claim 11, wherein said control unit is programmed to control opening and closing of said semiconductor safety switch as a function of at least one of:

time elapsed following said vehicle ceases operation;

a charge state of said battery; and

current consumption of said vehicle socket.

13. The apparatus according to Claim 11, wherein said semiconductor safety switch provides a bidirectional current flow capability, whereby said vehicle battery can be charged via the vehicle socket.